# NEWS REPORT

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# Academy-Research Council Publications in 1952


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"DIFFUSED knowledge immortalizes itself," said Sir James Mackintosh in his *Vindiciae Gallicae*. That the year was 1791 and the subject was the French Revolution does not change the significance of Sir James's statement for the National Academy of Sciences–National Research Council in its modern scientific context. A great deal of knowledge is generated, collected, exploited, or otherwise treated through the operations of the Academy–Council. This knowledge is interchanged among a limited number of individuals through committee meetings, conferences, minutes, and the like. But, if it is to be fully useful, its greater immortality through wider diffusion is necessary, and that diffusion depends in large measure on more formal publication whenever knowledge is properly focused and collated for that purpose.

Besides their relevance as a measure of the vitality and effectiveness of the organization, the publications of the Academy–Council are a valuable aid to the uninitiated individual who undertakes the fascinating but formidable task of familiarizing himself with its extraordinarily diversified activities. On both counts, the examination here reported may be of some general interest. Ideally, of course, it should include remarks on quality as well as quantity of output, but pronouncements on as subjective a matter as quality, especially where such a wide range of subject matter is involved, are beyond both the ability and the temerity of this reporter.

Faithful readers can learn much about the printed output of the Academy–Council through *News Report*, where five to twenty new publications are ordinarily listed on the last page of each issue. The present report is intended to summarize those episodic glimpses for the year 1952.

Some seventy publications are included in the Academy–Council output for 1952. This number is, of course, exclusive of minutes, notices of meetings and their agenda, circulars, and the other administrative impedimenta, mostly mimeographed, that receive distribution in connection with the operating routine of the several divisions, offices, and agencies of the organization. It also excludes "limited distribution" reports of Academy–Council groups to their contracting agencies and all publications carrying military security classifications. Most of the latter are produced by the Committee on Undersea Warfare, the Committee on Amphibious Operations, or the Minerals and Metals Advisory Board. They are generally published in small quantities for carefully controlled distribution. Important as they are, they do not fit the general theme of this report, which has to do with efforts to diffuse knowledge as widely as possible.

The total of seventy does include an impressive variety of books, bulletins, pamphlets, periodicals, and other kinds of publications. Individual documents in 1952 ranged from 7 pages in length for one preliminary report in the Nuclear Science series to 731 pages for the *Tables of Chemical Kinetics*. Total pages of all publications for that year came to more than 15,000. There were three books longer than 500 pages each, while, of the remaining items exclusive of periodicals, about a third were between 150 and 500 pages long, a third between 50 and 150, and a third shorter than 50 pages. Eight periodicals were published, two of them monthlies, one with eleven issues a year, three with six, one with five, and one a quarterly.

For the majority of the items, the Academy–Council acted as its own publisher, its various offices and agencies taking full responsibility for preparation of copy, layout, editing, manufacture, distribution, and billing. Letterpress printing was done by contract; offset printing, either by contract or in the Academy–Council's own print shop. Editions ran generally from 500 to 2,000 copies; one item had a press run of only 200, while one had 85,000 copies because of a single very large order. A few of the longer books were published by commercial publishers.

The largest single producer of publications in 1952 was the Highway Research Board. This group accounted for over forty per cent of the titles and twenty-seven per cent of the total pages, reflecting its far-flung interests and the enthusiasm of its numerous participants. Its publications, measured in pages, equaled the total Academy–Council output, exclusive of periodicals.

The list of titles can be divided into five roughly defined categories: *1*) periodicals; 2) reports of conferences and symposia; 3) surveys, reviews, and bibliographies; *4*) glossaries, tables, and handbooks; and 5) monographs and special reports. Several examples of publications issued in 1952 in each category will illustrate the extent and variety of the publications program:

*1*) The *Proceedings* of the National Academy of Sciences has been growing rapidly in size in the last few years, while its coverage of the fields of science has become gradually more diversified. It totaled more than 1,100 pages for its twelve issues in 1952. However, another monthly periodical, entirely different in character and probably not so generally known among scientists–the *Prevention of Deterioration Abstracts*–attained 2,000 pages in 1952. Bimonthlies included *Summary Tables of Biological Tests*, the *Transactions* of the American Geophysical Union, and, of course, *News Report*. There were also the *Bulletin* of the American Institute of Biological Sciences, appearing five times a year, and the quarterly *Mathematical Tables and Other Aids to Computation*.

2) Symposia on the correlation between chemical structure and biological activity of compounds, on frost action in soils, on imperfections in nearly perfect crystals, on radiation effects on living systems, and on international cooperation in science are included. The 690-page book recording the proceedings of the annual meeting of the Highway Research Board also seems to fit best in this category, as does the report of the Third Inter-American Congress on Brucellosis.

3) There were surveys or reviews of the present status of oceanography, of the literature of dental caries, of therapeutic nutrition, of departments of geological science in the United States and Canada, of applied research practices in the United States, of the literature on dielectrics, of publications on the measurement of geologic time, of the literature on frost action in roads and airfields, and of many other matters.

*4*) Only a few items appeared under the heading of glossaries, tables, and handbooks in 1952, including a handbook of standard values for the composition and reactions of blood, the extensive (731 pages) *Tables of Chemical Kinetics*, and *Homogeneous Reactions*, in which a number of agencies besides the Academy–Council collaborated and which was printed by the Government Printing Office under the imprint of the National Bureau of Standards.

5) The monographs and special reports can generally be characterized as reports containing a large proportion of original

work and not coming under other categories. They included in 1952, for example, a preliminary report in the Nuclear Science Series entitled "Techniques of Particle Energy Control with Van de Graaff Accelerators" and a number of Highway Research Board reports, such as the account of extensive road tests in Maryland.

To place this sketch of the 1952 publications output in its proper perspective, a brief reference to the regularly printed Academy–Council publications list is helpful. The latest issue of that list came out in November, 1952. It contains titles, descriptions, and prices of nearly 250 publications now available. One or two date back twenty-five years, while several were published in the 1930's and many in the 1940's. A few are free; the prices of the remainder run from fifteen cents for certain bulletins and booklets to twenty dollars for one 1945 and one 1946 book and fifty dollars for a year's subscription to *Prevention of Deterioration Abstracts.*

In the face of this mass and variety of publications, much thought has lately been given to the question of whether it would be advantageous to make arrangements with a professional publisher to act as the regular publishing agent for the Academy–Council. Such arrangements might well serve to assure for its major publications the quality and dignity that the Academy–Council should maintain. Many publications of few pages, or reproduced in small numbers, can probably always be best published directly by the Academy–Council with desirable economy and adequate quality, whether or not a regular relationship with a professional publisher is established. Therefore, there seems no doubt that the publications office which has given such valuable service in the past few years will continue to be a feature of the Academy–Council's own staff organization. The whole question of additional arrangements to take care of future publication problems is under study by a committee of the Governing Board. The adequacy of its provisions for the diffusion of its knowledge will unquestionably continue, quite properly, to be one of the significant measures of the performance of the Academy–Council.

# The Fulbright Program

FRANCIS A. YOUNG

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THE Fulbright Act (Public Law 584), which authorizes educational exchanges between the United States and more than twenty-five countries, became law on August 1, 1946, when it was signed by President Truman. This Act provides that foreign currencies received by the United States in payment for overseas war surpluses shall be used in the countries of origin to cover the expenses of United States students, teachers, professors, and specialists who are selected to spend six months, a year, or more at educational institutions in the country concerned. The Act also provides that these foreign currencies may be used to pay travel expenses to the United States of foreign nationals selected to spend similar periods in this country. The National Academy of Sciences–National Research Council has an immediate and direct connection with the administration of the Fulbright Act since, in concert with other national research organizations, it has accepted certain specific responsibilities, as will be subsequently described, in the selection of candidates for awards and in the guidance of the program.

Although the Fulbright Act has been in effect for more than six years, only five years have elapsed since the first students, teach-

ers, and scholars were selected for awards. These initial years have been devoted primarily to the organization and expansion of the Program. The basic administrative structure was established at an early date, but it required many months of experimentation and policy formulation to develop the present elaborate and carefully coordinated system of operation which now extends to twenty-seven countries in Europe, Asia, Africa, and the Pacific. In the academic year 1951–52, approximately 1,500 American citizens and 2,500 foreign nationals, in all categories, were selected for awards.

This initial period of organization and expansion is now drawing to a close. While undoubtedly subject in many respects to further change, the Program has acquired its essential character and has arrived at that stage of maturity and permanence which provides an occasion, as well as the perspective, for making a report on its development and present status from the standpoint both of scholarship and of national interest.

It is obviously impossible in a brief article to deal with all phases of an operation as complex as the Fulbright Program, including its separate provisions for American citizens and those of other countries and its differing awards for professors, graduate students, and public school teachers. This article is confined, therefore, to the Program as it relates to exchanges of professors and research scholars and, still further, to certain features of general interest and significance, such as the manner in which the Program is administered, the relationship of the Program to the academic population, the effectiveness of the Program in promoting communication and understanding among peoples of differing cultures, and the outlook for the years ahead.

When one examines the administrative structure of the Program, the first reaction is apt to be one of astonishment that so complex and involved a system works as well as it does. The organizational features are those of decentralization and divided responsibility. At the center of the administrative network is the International Information Administration of the Department of State, which carries on the general administrative responsibility assigned by the terms of the Act to the Secretary of State. The Department negotiates the basic exchange agreements with foreign countries wishing to participate in the Program, receives and expends the funds appropriated by the Congress for the operating costs of the Program in the United States, makes the awards to individual participants, and coordinates the whole enterprise. Administration abroad centers in the binational foundations or commissions created in each of the participating countries. These agencies hold and disburse the foreign currencies from which Fulbright grants are made, prepare the annual programs in which the nature of the exchanges with each country is indicated, recommend foreign students, teachers, and scholars for travel grants to the United States, supervise American grantees, and perform other functions of a similar character. Since the foundations or commissions are entirely independent of each other, the Fulbright Program, instead of being one large multilateral program, is in effect a series of separate bilateral programs, each reflecting the interests and national character of the country to which it extends. The essential unity in this situation, which might otherwise be one of extreme diversity, is provided not only by the coordinating efforts of the Department of State but by still a third agency, the Board of Foreign Scholarships, composed of ten persons appointed by the President from various fields of education. The Board of Foreign Scholarships animates the entire undertaking, serves as the ultimate source of policy, and selects both the recipients of awards and the educational institutions at which they study or teach.

Each of the three agencies enumerated above—the Department of State, the foundations abroad, and the Board of Foreign Scholarships—is cited in, and derives its authority from, the Fulbright Act. Not mentioned in the Act, but essential to its operation, are four so-called "cooperating agencies." These agencies have contracted with the Department of State to provide professional service in conducting public competitions for awards and in evaluating the qualifications of candidates. The Insti-

tute of International Education in New York City provides these services in connection with college and university graduate students; the Office of Education and the American Council on Education, in connection with elementary and secondary school teachers; and the Conference Board of Associated Research Councils (National Research Council, Social Science Research Council, American Council of Learned Societies, and American Council on Education), in connection with university professors and research scholars. Administrative decentralization is therefore carried one step further by delegating to specialized agencies the difficult and often highly technical task of evaluating the qualifications of the large numbers of academic personnel who annually apply for awards.

The principal disadvantages of so complex an arrangement are the constant adjustments and consultations required to keep the operating agencies, both in the United States and abroad, working in harmony and the great amount of time consumed in the screening, placement, and selection of grantees. The advantages, although perhaps less obvious, are a tribute to the insight and imagination which entered into the original legislation and which later established a framework of administration and control which unites the special interests of Government, the general public, and the participants themselves.

No state-supported program for the international exchange of persons can be divorced from other Government efforts in the sphere of international relations, and this principle is reflected in the assignment of fiscal and administrative responsibility to the Secretary of State. The interest of the general public in an exchange of persons rather than of official representatives is acknowledged in the creation of the Board of Foreign Scholarships with its powers of supervision and selection. The bilateral character of the Program and its acceptance abroad is assured by the establishment of overseas foundations with definite powers of initiative and local control. Finally, the interests of the participants are safeguarded by the cooperating agencies which, in representing the academic professions and in serving as screening and consultative bodies, link organized scholarship with the agencies of the state. The fact that the Fulbright Program, subject to all the hazards of inter-group and international cooperation, has grown steadily in strength in the last five years is, in large measure, due to the soundness of its administrative structure.

The role of the academic population in the Fulbright Program should be viewed against this background. The persons selected to represent American culture abroad as Fulbright fellows are not only drawn almost entirely from this group, but this group is itself the principal source of the informed judgment upon which the wise selection of academic representatives depends. To evaluate the qualifications of candidates for awards as a professor or research scholar, the Conference Board of Associated Research Councils has established a central Committee on International Exchange of Persons and a supporting system of approximately fifty advisory screening committees composed of more than 200 subject-matter specialists appointed by the four research councils which constitute the Conference Board. Most of these committees convene in Washington at least once a year to judge the projects and qualifications of applicants and to comment on the state of the programs as viewed by the respective academic disciplines. This system of one central committee representing scholarship as a whole and a large number of advisory committees representing the respective disciplines has proved remarkably successful in gaining for the Program the advice and support of outstanding American scholars, in maintaining the competitive character and professional quality of the selection process, and in promoting confidence in the Program among the receiving institutions abroad.

The Conference Board has been somewhat less successful in getting the best scholars in the country to make applications for awards. This is particularly true in the lecturing category. The primary concern of the university professor during those occasional periods in which he can obtain extended leave from his teaching or administrative responsibilities is usually the advancement of his own scholarship. At

such times, he is naturally drawn to the research rather than to the teaching opportunities afforded by the Program. As a research scholar, he is quite willing to draw, to the extent of his ability, upon his own resources for the necessary dollars required to supplement the Fulbright foreign currency stipend. In the lecturing category, motives of scholarship are usually less active and the financial sacrifices are often greater, since awards for lecturing are subject to Federal income tax. It is, in fact, rather surprising that so many American scholars apply annually in the lecturing category. Even so, there are not enough qualified candidates to meet the needs of the Program, and ways must be found to stimulate greater interest in these appointments and to make the awards more attractive financially.

Although precise evidence is lacking regarding the contribution the Program is making to its primary objective of promoting intercultural communication and understanding, largely because scientific methods for measuring the products of cultural interaction for so large a program are still in the process of development, nevertheless there is abundant testimony to the Program's effectiveness. Reports of the grantees themselves, of which there are now several thousand, leave little doubt of the great individual benefits which are shared with colleagues, associates, and students.

Furthermore, the annual reports of the foundations abroad attest to the more visible achievements of the Program in influencing the educational life of the participating countries. One may cite as examples the interest aroused in the United Kingdom in the Conference on American Studies held last summer at Cambridge, the contribution made by American Fulbright scholars in the development of the Institute for Social Research and the American Institute at the University of Oslo, the growing tradition of collaboration between American and French specialists in engineering and mathematics, the organization of a summer seminar in Italy for American teachers in classical studies, the introduction of American methods of agriculture and home economics extension in Greece, the development of library training in Thailand and Egypt, and the impetus given to the extension and improvement of popular education in the Philippines, Burma, India, and Pakistan. Achievements such as these lose none of their significance when we realize that the Program is financed largely through the use of foreign currency. The Fulbright Program, in its cost to the taxpayer, is the least expensive of the Government's many exchange and informational activities.

The next five years will probably see very little expansion in the size of the Fulbright Program, but there is good reason for anticipating steady growth in its effectiveness. With the problems of organization and the inevitable initial adjustments out of the way, future trends will be toward greater imagination in planning, more flexibility in operation, and a wider and less hesitant participation by colleges and universities here and abroad, especially in making dollar contributions in aid of Fulbright exchanges. The many contacts between American and foreign scholars already made possible by the Program will result in improved plans for utilizing future opportunities. More effective coordination with other Government and privately supported exchange programs is gradually being achieved, and improvements in the selection of grantees will follow upon the development of more objective methods of evaluation.

The next five years should also strengthen the conviction, already shared by many, that international diplomacy can be made more effective by encouraging the free flow of ideas between nations. Scholars have long recognized the value of this exchange to their own work, but it is only in recent years that the nation as a whole has realized that this free flow of information can help all of us to understand and appreciate some of the problems confronting other nations and in turn help the people of other nations to understand us. It is in this area of exchange that the needs of the nation and of scholarship converge—it is the common ground upon which the Fulbright Program is based. The more closely the Program conforms to this community of interests between the nation and its scholars, the more certain it is of success.

# SCIENCE NEWS

## ANNUAL MEETING
## NATIONAL ACADEMY OF SCIENCES

The ninetieth Annual Meeting of the National Academy of Sciences will be held at the Academy building in Washington, April 27–29. There will be a brief meeting of Academy members Monday morning, April 27, and a full day for the transaction of Academy business on Tuesday. Sessions for the presentation of scientific papers are scheduled for Monday, April 27, and Wednesday, April 29. These scientific sessions are open to the public.

On Monday evening, there will be a special meeting in the auditorium of the Academy building for presentation of the following medals: *1*) the Daniel Giraud Elliot Medal for 1949, to Arthur Cleveland Bent in recognition of the seventeenth volume in his series on the Life Histories of North American Birds; *2*) the Kovalenko Medal for 1952, to Alfred Newton Richards, former President of the National Academy of Sciences, in recognition of the outstanding contributions to medical science he has made over a period of half a century and for his great ability as an investigator and as a research executive and administrator; *3*) the Mary Clark Thompson Medal for 1952, to Lloyd William Stephenson of the U. S. Geological Survey, in recognition of his studies on the stratigraphy and paleontology of the Upper Cretaceous deposits of the Atlantic and Gulf Coastal Plains of the United States; *4*) the Alexander Agassiz Gold Medal for 1952, to Hildebrand Wolfe Harvey of the Marine Biological Association, Plymouth, England, for his contributions to the science of oceanography; and *5*) the Charles Doolittle Walcott Medal for 1952, to Franco Rasetti of The Johns Hopkins University, for his contributions to Cambrian paleontology.

Following this meeting, an informal reception for Academy members and their guests will be held in the library and reading room of the Academy building.

The Academy dinner for members and guests will be held on Tuesday, April 28, at the Hotel Washington. On Wednesday evening, a buffet supper, for members only, will be served in the auditorium of the Academy building, to provide opportunity for informal discussion of matters of current interest.

## ACADEMY–COUNCIL LECTURE SERIES

The afternoon lecture series inaugurated in 1951 continues to be well attended by the scientific public in the Washington area. Since the last issue of NEWS REPORT went to press, the following lectures have been delivered:

February 24, "The Structure of Proteins and Nucleic Acids," by Linus Pauling, professor of chemistry and Head of the Department of Chemistry, California Institute of Technology.

March 19, "Recent Developments in Research on Poliomyelitis and Other Viruses," by Thomas M. Rivers, member of the Rockefeller Institute for Medical Research and Director of the Hospital of the Institute.

## ANNUAL MEETING
## HIGHWAY RESEARCH BOARD

Because of the widespread interest in highway affairs and the tremendous amount of highway research which is under way in the United States, the annual meetings of the Highway Research Board of the Division of Engineering and Industrial Research have become scenes of concentrated activity with three or four simultaneous technical sessions being conducted day and night throughout the week of the meeting.

The thirty-second annual meeting, held in Washington, January 13–16, was no exception. Twenty-eight technical sessions were held from Tuesday morning to Friday noon. One hundred and seventy-three authors and committee chairmen presented 152 papers and reports, most of which will be published during 1953 by the Board.

During the week almost all of the Board's seventy-five departments and committees held business meetings to discuss the work of the past year and to plan next year's activities.

The technical sessions and committee meetings were attended by 1,145 registered delegates representing state highway departments, Federal agencies, colleges and universities, and industries and trade associations in the transportation field. Highway agencies in several foreign countries were also represented.

According to a number of speakers, the most serious problems now facing highway engineers and administrators were those dealing with the effects of heavy truck traffic on the existing highway systems and those dealing with the means of financing badly needed highway improvements to provide a system that will carry the greatly increased truck and passenger traffic and provide some assurance that the system will not become obsolete before it is paid for. Other speakers discussed the shortage of engineering personnel (critical in many areas), recent highway studies of engineering materials, highway maintenance problems, improvements in devices to aid night visibility, studies of drivers and driver behavior, parking in relationship to business, highway right-of-way problems, and many other related subjects.

### AMERICAN INSTITUTE OF BIOLOGICAL SCIENCES

The American Institute of Biological Sciences has announced the appointment of two new members to the Governing Board: John N. Couch of the University of North Carolina, representing the Mycological Society of America, and Clay G. Huff of the Naval Medical Research Institute, representing the American Society of Naturalists.

Milton O. Lee, Managing Editor of the *Federation Proceedings*, has been named a member of the Committee on the Handbook of Biological Data. The following were recently appointed liaison representatives of Government agencies supporting the Handbook: F. J. Knoblauch, Department of the Army; Orr E. Reynolds, Office of Naval Research; and John C. Bugher, Atomic Energy Commission.

### GRANTS FOR CANCER RESEARCH

Upon the recommendation of the Committee on Growth of the Division of Medical Sciences, the American Cancer Society has awarded 253 grants-in-aid for cancer research totaling $1,758,000. Ninety members of panels and sections of the Committee on Growth met in December to consider applications for these grants; final action on the recommendations made by these groups was taken by the Committee on Growth at its meeting on January 26.

It is interesting to note that the number of applications received by the Committee and the total amounts requested have remained approximately the same in recent years. This year the Committee received 337 applications requesting a total of $2,753,000; last year it received 339 applications requesting $2,865,000; and, the preceding year, it received 333 applications requesting $2,708,000. Although it has not been possible or desirable to approve all requests, the total awards over a period of eight years have exceeded $14,000,000.

### FOOD AND NUTRITION BOARD

During 1952, the Food and Nutrition Board gave increased attention to the character of the food supply and the effects of legislative control on the nutritional qualities and technological development of foods. Concurrently, new nutritional discoveries with therapeutic and public health applications were considered in relation to the Board's continuing program for the promotion of nutritional science. In this respect, two significant publications were issued: *1) Therapeutic Nutrition,* an attempt to compile present knowledge on the role of nutrition in accelerating recovery from disease or injury, and *2) A Survey of the Literature of Dental Caries,* a critical review of the prevalence, pathology, and experimental evidence for prevention of dental caries.

The Board advised Government agencies on national nutrition problems requiring policy development and cooperated with the Federal Civil Defense Administration in developing a program assessing the nutritional status of populations under emergency circumstances.

## SYMPOSIA ON MILITARY FOOD PROBLEMS

The Committee on Foods of the Advisory Board on Quartermaster Research and Development is sponsoring a series of symposia and informal conferences on food problems of particular interest to the military. The first of the series was the Symposium on Nutrition under Climatic Stress, held on December 4 and 5, 1952 and reported in the previous issue of NEWS REPORT. These symposia are planned by the Committee on Foods and the Quartermaster Food and Container Institute.

On January 16, a symposium on "The Stability of Shortenings in Cereal and Baked Products" was held in Chicago. Assisting Donald K. Tressler and the staff of the Food and Container Institute in arranging the program were R. T. Milner, Director of the Northern Regional Research Laboratory of the Department of Agriculture and Chairman of the Subcommittee on Dairy, Oil, and Fat Products, and W. F. Geddes of the University of Minnesota, Chairman of the Subcommittee on Cereal and Baked Products. Subjects discussed included the effect of chemical and physical processing on the stability of animal and vegetable fats and oils.

A symposium on "Factors Affecting the Quality and Stability of Dehydrated Eggs" was held in Chicago on February 12 and 13. Donald K. Tressler and his staff at the Institute cooperated with H. E. Robinson, Director of Research for Swift and Company and Chairman of the Subcommittee on Animal Products, and several members of the staff of the Western Regional Research Laboratory of the Department of Agriculture in arranging the program. Papers were presented on chemical and microbiological factors affecting the quality and stability of dehydrated eggs.

"Food Acceptance" was the title of an informal three-day conference held at the Institute January 28–30. During the first two days of the conference, organizations under Quartermaster research contract reported their findings in the fields of psychophysiology, psychometrics, and attitudes and scaling with particular emphasis on the military problems in food acceptance.

## COMMITTEE ON CLAY MINERALS

Within the past twenty years, interest in clay research has greatly increased. A fundamental understanding of the composition, properties, origin, and mode of occurrence of all kinds of clay materials, including soils, is important to agriculture, geology, engineering, ceramics, and to many industries. The development and improvement of such techniques as X-ray and electron diffraction, infra-red spectroscopy, and differential thermal have provided, for the first time, adequate tools for studying such fine-grained materials as clays. A large number of mineralogists, geologists, chemists, physicists, ceramists, and agronomists are engaged in research on the fundamental constituents of clay materials, i.e., the clay minerals.

The National Research Council recently approved the establishment of a Committee on Clay Minerals to coordinate work being done in clay mineralogy and to bring together workers in the various allied fields. The new Committee has been set up under the Division of Geology and Geography, with representatives from the Divisions of Biology and Agriculture and of Chemistry and Chemical Technology.

The following scientists have been appointed to serve on the Committee: Ralph E. Grim, University of Illinois, *Chairman;* A. F. Frederickson, Washington University, *Secretary;* Ernst A. Hauser, Massachusetts Institute of Technology; E. C. Henry, Pennsylvania State College; A. L. Johnson, Universal-Rundle Corporation; W. P. Kelley, University of California; P. F. Kerr, Columbia University; Charles Meyer, Anaconda Copper Company; W. O. Milligan, Rice Institute; P. G. Nahin, Union Oil Company of California; Edmund F. Preece, Corps of Engineers; Richard A. Rowland, Shell Oil Company; and Karl Terzaghi, Harvard University. Paul DeVries Manning of the International Minerals and Chemical Corporation is the representative of the Division of Biology and Agriculture on the Committee, and H. F. McMurdie of the Bureau of Standards represents the Division of Chemistry and Chemical Technology.

# *COOPERATING SOCIETIES*

The following schedule of meetings of Societies cooperating with the National Research Council was prepared by the Librarian of the Academy–Council from information supplied by the Societies. For details regarding a specific meeting, please write directly to the Society Secretary.

**January**

American Society of Heating and Ventilating Engineers, *Chicago, Ill.*

19–23 American Institute of Electrical Engineers, *New York City*

22–24 American Physical Society, *Cambridge, Mass.*

26–29 American Meteorological Society, *New York City*

**February**

16 Society of Economic Geologists, *Los Angeles, Calif.*

16–19 American Institute of Mining and Metallurgical Engineers, *Los Angeles, Calif.*

**March**

9–11 Wildlife Society, *Washington, D. C.*

15–19 American Chemical Society, *Los Angeles, Calif.*

17–19 American Meteorological Society, *Atlantic City, N. J.*

23–25 American Congress on Surveying and Mapping, *Washington, D. C.*

23–26 American Association of Petroleum Geologists

23–26 Institute of Radio Engineers, *New York City*

23–26 Society of Economic Paleontologists and Mineralogists, *Houston, Tex.*

23–26 Society of Exploration Geophysicists, *Houston, Tex.*

25–27 American Association of Anatomists, *Columbus, Ohio*

27–28 Seismological Society of America, *Palo Alto, Calif.*

30–Apr. 2 Association of American Geographers, *Cleveland, Ohio*

**April**

1–3 American Surgical Association, *Los Angeles, Calif.*

2–4 American Association of Pathologists and Bacteriologists, *St. Louis, Mo.*

5–10 American Physiological Society, *Chicago, Ill.*

6–10 American Institute of Nutrition, *Chicago, Ill.*

6–10 American Society of Biological Chemists, *Chicago, Ill.*

6–10 American Society for Experimental Pathology, *Chicago, Ill.*

6–10 American Society for Pharmacology and Experimental Therapeutics, *Chicago, Ill.*

12–16 Electrochemical Society, *New York City*

13–15 Industrial Research Institute, *White Sulphur Springs, W. Va.*

13–17 American College of Physicians, *Atlantic City, N. J.*

22–25 American Society of Ichthyologists and Herpetologists, *New York City*

26–30 American Ceramic Society, *New York City*

29–May 4 American Meteorological Society, *Washington, D. C.*

30–May 2 American Physical Society, *Washington, D. C.*

**May**

4 American Society for Clinical Investigation, *Atlantic City, N. J.*

4–6 American Geophysical Union, *Washington, D. C.*

4–8 American Psychiatric Association, *Los Angeles, Calif.*

5–6 Association of American Physicians, *Atlantic City, N. J.*

7–9 Acoustical Society of America, *Philadelphia, Pa.*

27–28 American Iron and Steel Institute, *New York City*

**June**

1–5 American Medical Association, *New York City*

15–17 American Neurological Association, *Atlantic City, N. J.*

15–18 American Society of Mammalogists, *New York City*

15–19 American Institute of Electrical Engineers, *Atlantic City, N. J.*

16–18 American Meteorological Society, *Santa Barbara, Calif.*

18–22 Society for the Study of Development and Growth, *Durham, N. H.*

19–20 Econometric Society, *Palo Alto, Calif.*

22–24 American Dairy Science Association, *Madison, Wis.*

22–26 American Crystallographic Association, *Ann Arbor, Mich.*

22–26 American Society for Engineering Education, *Gainesville, Fla.*

28–July 1 American Society of Refrigerating Engineers, *Lake Placid, N. Y.*

29–July 3 American Society for Testing Materials, *Atlantic City, N. J.*

**July**

20–23 American Veterinary Medical Association, *Toronto, Canada*

**August**

10–14 Society of American Bacteriologists, *San Francisco, Calif.*

25–28 Poultry Science Association, *Vancouver, Canada*

26–30 American Astronomical Society, *Boulder, Colo.*

**September**

Econometric Society, *Kingston, Canada*

1–4 American Institute of Electrical Engineers, *Vancouver, Canada*

4–9 American Psychological Association, *East Lansing, Mich.*

6–9 American Society for Horticultural Science, *Madison, Wis.*

6–9 American Society of Plant Physiologists, *Madison, Wis.*

6–9 Biometric Society (Eastern North American Region), *Madison, Wis.*

6–10 Ecological Society of America, *Madison, Wis.*

6–11 American Chemical Society, *Chicago, Ill.*

7–9 American Society of Parasitologists, *Madison, Wis.*

7–9 American Society for Pharmacology and Experimental Therapeutics, *New Haven, Conn.*

7–9 Mycological Society of America, *Madison, Wis.*

7, 8, 10 Botanical Society of America, *Madison, Wis.*

8–10 American Phytopathological Society, *Madison, Wis.*

9–15 American Meteorological Society, *Toronto, Canada*

12 American Society of Limnology and Oceanography, *Madison, Wis.*

14–17 Illuminating Engineering Society

14–17 Society of American Foresters, *Colorado Springs, Colo.*

28–Oct. 1 American Dental Association, *Cleveland, Ohio*

28–Oct. 1 Institute of Traffic Engineers, *Buffalo, N. Y.*

29–Oct. 2 American Roentgen Ray Society, *Cincinnati, Ohio*

**October**

5–9 American College of Surgeons, *Chicago, Ill.*

6–9 American Academy of Pediatrics, *Miami, Fla.*

15 Engineering Foundation, *New York City*

15–17 Optical Society of America, *Rochester, N. Y.*

19 American Institute of Consulting Engineers, *New York City*

19–23 American Society for Metals, *Cleveland, Ohio*

19–23 American Welding Society, *Cleveland, Ohio*

21–23 American Society of Civil Engineers

**November**

American Academy of Tropical Medicine, *Louisville, Ky.*

Society of Vertebrate Paleontology, *Toronto, Canada*

2–6 American Institute of Electrical Engineers, *Kansas City, Mo.*

9–11 Geological Society of America, *Toronto, Canada*

9–11 Mineralogical Society of America, *Toronto, Canada*

9–12 American Meteorological Society, *Austin, Tex.*

11–14 Paleontological Society, *Toronto, Canada*

11–14 Society of Naval Architects and Marine Engineers, *New York City*

12–14 American Society of Tropical Medicine and Hygiene, *Louisville, Ky.*

16–20 American Society of Agronomy, *Dallas, Tex.*

16–20 Soil Science Society of America, *Madison, Wis.*

27–28 American Society of Animal Production, *Chicago, Ill.*

29–Dec. 4 American Society of Mechanical Engineers, *New York City*

**December**

Econometric Society, *Washington, D. C.*

Entomological Society, *Los Angeles, Calif.*

Genetics Society of America, *Boston, Mass.*

13–16 American Institute of Chemical Engineers, *St. Louis, Mo.*

26–31 American Association for the Advancement of Science, *Boston, Mass.*

27 American Society of Zoologists, *Boston, Mass.*

27–30 Institute of Mathematical Statistics, *Washington, D. C.*

27–30 Society of Systematic Zoology, *Boston, Mass.*

28–30 American Anthropological Association, *Tucson, Ariz.*

28–30 Association for Symbolic Logic

29–30 American Meteorological Society, *Boston, Mass.*

30–31 Mathematical Association of America

# *INTERNATIONAL RELATIONS*

## INTERNATIONAL GEOPHYSICAL YEAR 1957-58

At the request of the International Council of Scientific Unions, the National Academy of Sciences–National Research Council has formed the United States National Committee for the Third Geophysical Year. This Committee will be responsible for developing a program of geophysical observations to be carried out by United States scientists as part of an international program of scientific investigations to be conducted from August, 1957 to August, 1958. Membership of the Committee, as announced by the Chairman of the National Research Council, is as follows: J. Kaplan, Institute of Geophysics, University of California, *Chairman;* L. H. Adams, Carnegie Institution of Washington; H. G. Booker, Cornell University; Lyman W. Briggs, National Geographic Society; G. M. Clemence, Naval Observatory; C. T. Elvey, Geophysical Institute, Alaska; John A. Fleming, American Geophysical Union; Nathaniel C. Gerson, Geophysics Research Directorate, Department of the Air Force; Paul Klopsteg, National Science Foundation; F. W. Reichelderfer, Weather Bureau; Elliot B. Roberts, Coast and Geodetic Survey; Alan H. Shapley, National Bureau of Standards; Paul A. Siple, General Staff, Department of the Army; Otto Struve, University of California; Merle Tuve, Carnegie Institution of Washington; and Lincoln Washburn, Corps of Engineers, Department of the Army.

The following persons will serve as ex officio members of the Committee: Wallace W. Atwood, Jr., Director, Office of International Relations, National Academy of Sciences–National Research Council; Lloyd V. Berkner, President, Associated Universities, Inc.; J. Wallace Joyce, Deputy Science Adviser, Department of State; and William W. Rubey, Chairman, National Research Council.

The 1957–58 scientific investigations to be conducted by various nations simultaneously will constitute the third international scientific experiment of this type. The first program was conducted in 1882–83 and the second in 1932–33. These "years" were known as "international polar years" since observations were limited to the polar regions. Extension of the area of observations to include the equatorial as well as the polar regions was believed desirable and, consequently, the name was changed to the International Geophysical Year. Although a majority of observations presumably will be made in equatorial and polar regions, the field is world-wide.

The Provisional Secretary of the International Committee, E. Herbays of Brussels, reports that the Third Geophysical Year will include investigations in the fields of astronomy, geophysics, meteorology, geography, and radio-science. Particular attention will be given to phenomena of the earth's atmosphere, to problems of longitude determination, and to those other aspects of geophysics that depend for their understanding upon simultaneous world-wide observations.

The International Committee, which will coordinate preparations for the Third Geophysical Year, will hold its first meeting at Brussels, June 30–July 3. Membership of this Committee includes representatives of the following international organizations: the International Council of Scientific Unions, the International Astronomical Union, the International Union of Geodesy and Geophysics, the International Geographical Union, the International Scientific Radio Union, and the World Meteorological Organization. The first task of this Committee will be to examine programs of investigations suggested by national committees of participating countries and to prepare a preliminary coordinated program.

## SURVEY OF FLOOD DISASTER IN ENGLAND, THE NETHERLANDS, AND BELGIUM

The Committee on Disaster Studies of the Division of Anthropology and Psychology, recognizing that the recent flood disaster in England, the Netherlands, and Belgium was in many ways analogous to one caused by enemy action, decided that the problems to which it gave rise should be studied by the Committee.

Accordingly, on February 10, John P. Gillin, professor of anthropology at the University of North Carolina and a member of the Committee, and Harry B. Williams, Executive Secretary of the Committee, flew to London where they met with officials of the United States Embassy and British scientists to make plans for a joint study of the disaster to be supported by the Committee under British aegis. The British requested, through Dr. Gillin and Mr. Williams, that the following American scientists be sent to England: John P. Spiegel, a psychiatrist at Michael Reese Hospital in Chicago and a member of the Committee; R. Keith Cannan, Division of Medical Sciences of the National Research Council; and Leonard Logan of the University of Oklahoma, a specialist on community organization.

Later Dr. Gillin and Mr. Williams went to the Netherlands where they met with Professor Sjoero Groenman of the University of Utrecht, Director of the Institute for the Social Investigation of the Netherlands Population. The Institute counts among its members the principal anthropologists and social scientists in the Netherlands and is part of the Royal Netherlands Academy of Science. Arrangements were made for a disaster study team, to be composed of two Dutch and two American investigators, to work under Dr. Groenman's direction. The Dutch requested that Dorothy Louise Keur, associate professor of anthropology at Hunter College, who recently made a study of a Dutch community, and Bradford B. Hudson, a psychologist at Rice Institute who had previously studied floods in Kansas and Oklahoma and the Texas City disaster, be the American members of the team.

The British-American and Dutch-American teams have now completed their preliminary surveys and have submitted reports. The Committtee on Disaster Studies met March 6 and 7 to discuss the results of the surveys with the American members of the teams and to make recommendations for additional studies to be carried out in this country and abroad.

## INTERNATIONAL UNION AGAINST CANCER

The Executive Committee of the International Union against Cancer and the International Cancer Research Commission of the Union met December 30, 1952–January 3, 1953 in Bombay, India. Harold L. Stewart of the National Cancer Institute served as the official representative of the U. S. National Committee of the Union. Murray J. Shear, also of the National Cancer Institute, attended the meeting and convened the special symposium on the present status of the chemotherapy of cancer.

On the return journey from India, Dr. Stewart and Dr. Shear visited medical centers in Egypt, Greece, and Israel. One of the outstanding events of the tour was the visit to the Weizman Institute in Israel.

Reports on these visits and on the Bombay meeting will be available in the near future and will be summarized in NEWS REPORT.

## INTERNATIONAL MEETINGS, 1953

The list of international meetings, to be held under the auspices of the International Council of Scientific Unions and its constituent unions, reported in the previous issue of NEWS REPORT, should be revised as follows:

*1*) Symposium on Concepts of Complementarity and of Individuality in Biology and Sociology, postponed until 1954.

*2*) Symposium on Gas Dynamics of Interstellar Clouds, Cambridge, England, July 6–11.

*3*) Twelfth International Congress of Limnology, Cambridge, England, August 20–30.

*4*) Joint Commission on High Altitude Research Stations, Boulder, Colo., August 22–25.

## INTERNATIONAL SCIENTIFIC RADIO UNION

The annual meeting of the United States National Committee of the International Scientific Radio Union will be held at the National Bureau of Standards in Washington, April 27–30. Following business and executive meetings of the Committee and of the various national commissions on the first day, the remaining sessions will be devoted to invited and contributed papers on radio science.

These programs have been arranged by the eight commission chairmen as follows: Methods and Standards, F. J. Gaffney, Polytechnic Research and Development Company; Tropospheric Propagation, A. W. Straiton, University of Texas; Ionospheric Propagation, H. G. Booker, Cornell University; Terrestrial Radio Noise, H. E. Dinger, Naval Research Laboratory; Radio Astronomy, A. H. Shapley, National Bureau of Standards; Radio Circuits, Samuel Silver, University of California; Radio Antennae, C. H. Page, National Bureau of Standards; and Electronics, J. A. Morton, Bell Telephone Laboratories.

Preliminary plans for a program of research for the Third International Geophysical Year (1957–58) will be discussed. Plans for the Eleventh General Assembly of the International Scientific Radio Union, to be held in the Netherlands in 1954, will also be initiated.

## INTERNATIONAL UNION OF CRYSTALLOGRAPHY

The United States National Committee of the International Union of Crystallography met at the American Institute of Physics in New York City on February 14. The purpose of the meeting, which was called by the Chairman, L. O. Brockway, professor of chemistry at the University of Michigan, was to discuss various questions scheduled to come before the Executive Committee of the Union at its meeting in Paris, April 13–15. The Chairman announced that P. P. Ewald of Polytechnic Institute of Brooklyn and A. L. Patterson of the Institute for Cancer Research would attend the meeting of the Executive Committee.

Among the items considered at the New York meeting were several relating to the work of the Union and the program for the Third International Congress of Crystallography and the Third General Assembly of the Union, which will be held in Paris, July 21–28, 1954.

## INTERNATIONAL CONGRESS ON ELECTROACOUSTICS

The International Commission on Acoustics (a special commission of the International Union of Pure and Applied Physics), of which Richard H. Bolt, associate professor of physics and Director of the Acoustics Laboratory at the Massachusetts Institute of Technology is president, is sponsoring an International Congress on Electroacoustics in the Netherlands, June 16–24. The opening session of the Congress, which will be held at The Hague, will include a lecture by Dr. Bolt. The technical sessions will be held in the institutes of the Technological University of Delft, in Eindhoven (Philips' Industries), and at Hilversum (Netherlands Broadcasting Center). These sessions of the Congress will be presented in seven major sections, one of which will take the form of a symposium on the sound insulation of lightweight structures, under the leadership of C. W. Kosten of the Netherlands. The subjects of the other sections and their leaders are as follows: Sound Recording, R. Vermeulen (Netherlands); Public Address Systems, E. Meyer (Germany); Acoustic Measurements, L. L. Beranek (United States); Hearing Aids and Audiometers, P. Chavasse (France); Electroacoustics in Ultrasonics, G. Bradfield (Great Britain); and Electroacoustics Applied to Musical Instruments, E. G. Richardson (Great Britain).

## FULBRIGHT OPPORTUNITIES

The Committee on International Exchange of Persons of the Conference Board of Associated Research Councils has announced the 1954–55 competition for Fulbright awards in Burma, Ceylon, Australia, New Zealand, Thailand, India, the Philippines, and the Union of South Africa. Applications will be accepted through April 15 for awards to begin in the spring or summer of 1954.

# *RECORD OF MEETINGS*

**January**

5 Committee on International Exchange of Persons
Conference Board of Associated Research Councils

6 Heating Advisors Group
Task Group No. 5–Pressure Drainage Systems

7–8 Permanent Magnet Materials Panel, *New York City*

8 Subcommittee on Films and Coated Fabrics
Subcommittee on Rainwear

9 Joint Meeting and Briefing Session on Research Problems in Disaster at the National Civil Defense Training Center, *Olney, Md.*
Task Group No. 1–Ceiling Heights
Vanadium Panel (Structural Steels Sub-Panel), *Detroit, Mich.*

9–10 Committee on Drug Addiction and Narcotics, *Lexington, Ky.*

10 Committee on Army Medical Service Graduate School
Committee on Disaster Studies

12–16 Highway Research Board, Annual Meeting

14 Magnesium Alloys Panel

15 Chromium Panel
Mica Panel, *New York City*

16 Subcommittee on Cereal and Baked Products, *Chicago, Ill.*
Subcommittee on Dairy, Oil, and Fat Products, *Chicago, Ill.*

17 Committee on Highway Safety Research

19 Task Group No. 3–Warehouses Standards

20 Committee on Flame and Thermal Protective Combat Clothing, *Philadelphia, Pa.*
Panel on Allocation of Gamma Globulin, *New York City*

21 Subcommittee on Radiochemistry, *Cambridge, Mass.*

22 Committee on Wool-Type Fabrics and Blends, *New York City*

23 Task Group No. 2–Pipe Corrosion

24 Conference on Physiological Bases of Selection of Personnel
Subcommittee on Unclassified Reactors, *Cambridge, Mass.*

26 Committee on Growth

26–27 Commission on Human Resources and Advanced Training, *Ann Arbor, Mich.*
Conference on Research in Hospital Design

27 Institute of Animal Resources

28 Medical Sciences Information Exchange, Policy Committee
Task Group No. 1–Ceiling Heights

28–30 Subcommittee on Acceptance, *Chicago, Ill.*

29 Committee on Globes (Construction and Use of Precise Globes and Spherical Maps)
Conference on Germ-Free Animals
Vanadium Panel (Tool Steels Sub-Panel), *Detroit, Mich.*

30 Committee on Ophthalmology
Division of Anthropology and Psychology, Executive Committee, *Cambridge, Mass.*

**February**

2–3 Committee on Astronomy, Advisory to Office of Naval Research

3 Task Group No. 3–Warehouses Standards

4 Nickel Conservation Panel
Subcommittee on Sterilization of Blood and Plasma

5 Ad hoc Conference on Atherosclerosis
Committee on Cancer Diagnosis and Therapy
Task Group No. 6–Paint

6 Division of Medical Sciences, Executive Committee

10 Committee on Fabrics for Body Armor
Subcommittee on Ceiling Heights

11 Task Group No. 2–Pipe Corrosion
Advisory Selection Committee for National Science Foundation Postdoctoral Fellowships in Engineering

12 Committee on Topographic Maps Illustrating Cultural Geography
American Geological Institute, Executive Committee
Committee on Geography, Advisory to the Office of Naval Research

12–13 Subcommittee on Experimental Cookery, Symposium on Dehydrated Eggs, *Chicago, Ill.*

13 Medical Sciences Information Exchange, Policy Committee

14 Conference on Epidemiology of Poliomyelitis
U. S. National Committee, International Union of Crystallography, *New York City*

14–15 Postdoctoral Fellowship Committee, Physical Sciences

16 Subcommittee on Dermatology

17 Subcommittee on Skeletal System
National Research Council–National Science Foundation Fellowship Committee
Subcommittee on Ceiling Heights

18 Committee on Dentistry
Subcommittee on Biochemistry
Subcommittee on Biology
Subcommittee on Clinical Investigation
Subcommittee on Etiology and Pathology
U. S. National Committee, International Union of the Biological Sciences

**February**

18–19 Invertebrate Consultants Committee for the Pacific, Annual Meeting, *Honolulu, T. H.*
19 Committee on Radiology
20 Subcommittee on Experimental Cookery, *Chicago, Ill.*
Committee on Naval Medical Research
Subcommittee on Food Supply
21 Committee on Atomic Casualties
22 National Research Council Postdoctoral Fellowship Committee in Chemistry
23 Division of Engineering and Industrial Research, Executive Committee
24 Ad hoc Committee on Stress
Task Group No. 1–Ceiling Heights
25 Conference on Oxypolygelatin
Conference on Polyvinylpyrrolidone
U. S. National Committee, International Union against Cancer
26 Committee on Condensation Control in Buildings
27 Task Group No. 6–Paint
28 Conference on Radiation Cataracts

# *NEW PUBLICATIONS*

*Annotated Bibliography of Analytical Methods for Pesticides.* Section I. Academy–Council Publication No. 241. 1952. 59 p. $1.00.

*Annual Review of Nuclear Science.* Vol. 2. Stanford, Calif., Annual Reviews, Inc. 1952. 680 p. $6.00.

*Atoll Research Bulletin.* Nos. 12, 13, and 14 [bound in one volume]. Pacific Science Board, National Academy of Sciences–National Research Council. December, 1952. 73 p., 62 p., 6 p.

*Compaction of Embankments, Subgrades, and Bases.* Highway Research Board Bulletin No. 58. Academy–Council Publication No. 240. 1952. 84 p. $1.50.

*Conference on School Building Costs.* Building Research Advisory Board, National Research Council. 83 p. $0.50.

*Food Protection Committee.* [Organization leaflet.] National Research Council. 1952.

*Pavement-Marking Materials.* Highway Research Board Bulletin No. 57. Academy–Council Publication No. 239. 1952. 133 p. $1.80.

*Report of Highway Safety Research Correlation Conference.* National Research Council. 1952. 67 p.

*Road-User Characteristics.* Highway Research Bulletin No. 60. Academy–Council Publication No. 244. 1952. 71 p. $0.90.

*Safe Use of Chemical Additives in Foods.* National Research Council. December, 1952. 26 p.

*Traffic Assignment.* Highway Research Board Bulletin No. 61. Academy–Council Publication No. 246. 1952. 71 p. $1.05.

*Zoning for Truck-Loading Facilities.* Highway Research Board Bulletin No. 59. Academy–Council Publication No. 243. 1952. 101 p. $1.50.

*Notice of Academy Meetings*

NATIONAL ACADEMY OF SCIENCES

Annual Meeting, Washington, D. C., April 27–29

Autumn Meeting, Massachusetts Institute of Technology, November 9–11

NATIONAL ACADEMY OF SCIENCES—NATIONAL RESEARCH COUNCIL

Governing Board, Washington, D. C., April 26

Governing Board, Washington, D. C., June 21

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